

REMARKS / DISCUSSION OF ISSUES

In response to the Office Action mailed on October 28, 2008¹ ("Office Action"), Applicants respectfully request reconsideration. All of the issues raised in the Office Action have been carefully considered and are addressed herein.

Claims 1, 4-11 and 7-26 are pending in the application. By this Amendment, Applicants cancel claims 12-13 without prejudice and amend claim 1 to more particularly define their contribution to the art. No new matter has been added.

Objection to the Drawings

The Office Action objects to the drawings for allegedly failing to show all features of claims 17 and 18. Applicants respectfully demur.

In relevant part, Rule 83(a) states:

The drawing in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (*e.g.*, a labeled rectangular box).

The Office Action asserts that the feedback signals are required in the drawings. Applicants respectfully disagree and submit that these illustrations are not required for a complete and clear understanding of the application. Notably, feedback signals, although recited in the claim are not amenable to ready representation in the drawings, as are an LED or transformer; and are not needed to be shown explicitly to garner a clear understanding of their import and meaning in claims 17 and 18.

In support of their position, Applicants direct attention to the filed application at page 5, lines 3-10:

The DC/AC converter 2 is essentially based on a control 21 to which two transistors 22, 23 arranged in a half bridge circuit are connected. Alternatively, the DC/AC converter may also be constructed as a full bridge circuit. The control 21 is optically connected to the LEDs 41, 42 at its input. Alternatively, the currents at the secondary side, associated with the half waves, may be measured and fed back. To convert the light emitted by the LEDs 41, 42 into electrical

¹ The Office Action contains statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

signals, the control 21 comprises photosensors (not shown). The cathodes of the LEDs 41, 42 are directly connected at the secondary side to the central tap 33 of the transformer 3.

Thus, from a review of this portion and Fig. 1, a clear understanding of the arrangement of the LEDs and the feedback is readily garnered. As such, Applicants respectfully submit that claims 17 and 18 are properly supported by the drawings, and that the drawing objection is improper and should be withdrawn.

Rejections under 35 U.S.C. § 112, ¶ 2

The rejections under this section of the Code have been considered and, while Applicants do not concede their propriety, in view of the cancellation of claims 12 and 13, these rejections are moot.

Rejections under 35 U.S.C. § 102

Independent claim 24 and claims 25-26 dependent therefrom are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by *Pong, et al.* (US PAP 2003/0112229). For at least the reasons set forth below, Applicants respectfully submit that this rejection is improper and should be withdrawn.

A proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

Claims 24 recites:

*An apparatus, comprising:
at least one first light source coupled to at least one secondary winding of a transformer so as to conduct a first secondary current and thereby generate first light only during a positive half-cycle of a secondary voltage across the at least one secondary winding;
at least one second light source coupled to the at least one secondary winding so as to conduct a second secondary current and thereby generate second light only during a negative half-cycle of the secondary voltage; and
at least one third light source coupled to the at least one secondary winding so as to conduct a third secondary current and thereby generate third light during both the positive half-cycle and negative half-cycle of the secondary voltage.*

The Office Action directs Applicants to Fig. 15 of *Pong, et al.* for the alleged disclosure of all features of claim 24. In particular, the Office Action directs Applicants to element 330 of *Pong, et al.* for the disclosure of the emphasized portion of claim 24 above. At the outset, Applicants note that element 330 is an inductor and not a light source. The remaining discussion is based on the premise that the Examiner is relying on element 335 of *Pong, et al.* for the alleged disclosure of the at least one third light source, because LEDs 320, 325 are applied to other features of the claim.

The LED 335 is in parallel with the series inductor of LED 320, and is reverse biased when current flows through the inductor. At reverse bias, the LED 335 is not conducting and therefore cannot generate light during both positive and negative cycles. (See paragraphs [0064] through [0067] of *Pong, et al.* for support for these assertions.)

Accordingly, Applicants respectfully submit that the applied art fails to disclose at least one feature of claim 24. As such, a *prima facie* case of anticipation has not been established and claim 24 is patentable over the applied art. Moreover, claims 25-26, which depend from claim 24, are patentable over the applied art for at least the same reasons and in view of their additionally recited subject matter.

Rejections under 35 U.S.C. § 103

Dependent claims 25 and 26 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious by *Pong, et al.* In addition, claims 1, 4-13 and 17-23 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious by *Pong, et al.* and *Elferich* (US PAP 2002/0186026).

For at least the following reasons, Applicants respectfully submit that all claims are patentable over the applied art.

A *prima facie* case of obviousness has three requirements. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, requires some reason that the skilled artisan would modify a reference or to combine references. *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332 (Fed. Cir. 2005). The Supreme Court has, however, cautioned against the use of “rigid and mandatory formulas” particularly with regards to finding reasons prompting a person of ordinary skill in the art to combine elements in the way the claimed new invention does. *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007). Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the same time the invention was made. In other words, a hindsight analysis is not allowed. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200. Lastly, the prior art reference or combination of references must teach or suggest all the limitations of the claims. *In re Wilson*, 424 F.2d 1382 (C.C.P.A. 1970).

At the outset, and while in no way conceding that the first and second requirements set forth above have been met, Applicants respectfully submit that the third requirement is not met and therefore the rejections are improper as discussed below.

A. Independent claim 1

Claim 1 recites:

A resonant power LED control apparatus comprising a single resonant converter configured to provide simultaneous, independent brightness and color control of two LEDs or two groups of LEDs, wherein the converter comprises a half or full bridge DC/AC converter with a control unit, a resonant capacitor, and a transformer, wherein at least one first LED of the two LEDs or two groups of LEDs conducts a first current only during a positive half-cycle of a secondary voltage across at least one secondary winding of the transformer, and at least one second LED of the two LEDs or two groups of LEDs conducts a second current only during a negative half-cycle of the secondary voltage (emphasis added)

The Office Action directs Applicants to paragraphs [0064], [0066] and [0067] of *Pong, et al.* for the alleged disclosure of, inter alia, the emphasized features of claim 1. Applicants respectfully submit that nowhere in the description of Fig. 15 is there any disclosure of providing simultaneous independent brightness control of LEDs as specifically recited in claim 1. Therefore, the applied art fails to disclose at least one feature of claim 1, and a *prima facie* case of obviousness has not been established. Accordingly, claim 1 and any claim dependent therefrom is patentable over the applied art.

B. Independent claim 17

Claim 17 includes features similar to those of claim 1 discussed above. Applicants respectfully submit that nowhere in the description of Fig. 15 is there any disclosure of providing simultaneous independent brightness control of LEDs as specifically recited in claim 17. Therefore, Applicants respectfully submit that the applied art fails to disclose at least one feature of claim 17, and a *prima facie* case of obviousness has not been established. Accordingly, claim 17 and any claim dependent therefrom is patentable over the applied art.

C. General Comments on Rejections of Dependent Claims

Since each of the dependent claims depends from a base claim that is believed to be in condition for allowance, Applicants believe that it is unnecessary at this time to argue the allowability of each of the dependent claims individually. Applicants do not, however, necessarily concur with the interpretation of any dependent claim as set forth in the Office Action, nor do Applicants concur that the basis for the rejection of any dependent claim is proper. Therefore, Applicants reserve the right to specifically address the patentability of the dependent claims in the future, if deemed necessary.

Conclusion

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' representative at the telephone number indicated below to discuss any outstanding issues relating to the allowability of the application.

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Respectfully submitted on behalf of
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